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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/28/2001

Hiroaki Sugiura

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EXAMINER

EBRAHIMI DEHKORDY, SAEID

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/994,761

Applicant(s)

SUGIURA ET AL.

Examiner

Saeid Ebrahimi-dehKordy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 13, 15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 4, 11, 12, 14, 16, 19 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/12/05, 12/9/04

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

9/20/04, 12/16/02  
5/17/02, 4/17/02  
11/28/01

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 5-8, 10, 13, 15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumada (U.S. patent 6,337,922)

**Regarding claim 1 and 5** Kumada discloses: A method of outputting original image data that was generated relative to a first color space (note Figs.18-23, column 11, lines 26-53 where the first color spaces of CIE, XYZ OR CIE lab produced) by an output device that converts image data of a second color space to a visually-perceptible analog thereof (note Fig.21, column 11 lines 53-57 where the second color space was created, CMYK) the method comprising: receiving from a provider (note Fig.23 item 40) over a communication channel (note Fig.23 item 30) original image data that was generated according to a first color space (note Fig.21, column 11 lines 49-53, independent color space CIE, XYZ OR CIElab) receiving from said provider (note Fig.23 item 40) over a communication channel (note Fig.23 item 30) along with said original image data, tag data representing parameters of said first color space (Kumada teaches that the output device receives along with the image data, tag data representing parameters of the first color space from the provider, Kumada teaches that the output receives image file

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added with a profile (note Fig.2 where the image file is added with a profile, the profile is divided into a header portion and data storage portion, in the header portion, information which is used to manage the profile is stored, in the data storage portion, profile description information for discriminating the profile is stored, column 1 lines 36-46 in addition the, from the prior art, a device profile performs a color conversion process to perform color matching between input and output images using the profile corresponding to a source device before conversion and a profile corresponding to a destination device after conversion, column 1 lines 15-21, thus the profile can include parameters of the color space of the image data) said output device (Fig.23 item 10) automatically converting said original image data into said second color space according to said tag data to produce converted image data of said second color space (note column 1 lines 36-46 in addition the, from the prior art, a device profile performs a color conversion process to perform color matching between input and output images using the profile corresponding to a source device before conversion and a profile corresponding to a destination device after conversion, column 1 lines 15-21, thus the profile can include parameters of the color space of the image data) and said output device converting said converted image data into a visually-perceptible analog thereof (note Figs. 4-5, 21, 25, 36-37, Abstract, column 5 lines 4-31, column 6 lines 16-67, column 11 line 27-column 12 lines 67, column 16 lines 23-60)

**Regarding claim 2 and 8** Kumada discloses: The method of claim 1, wherein said tag data include a code identifying a color space (note column 1 lines 36-46) primary coordinates (note Figs. 18, 19 and 20, column 11 lines 27-67 and column 12 lines 20-

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39) white point brightness (note column 16 lines 37-55) tone characteristics color reproduction characteristics (still picture/moving picture identification code (note Fig.4 column 5 lines 35-49).

**Regarding claim 6** Kumada discloses: The method of claim 5, wherein said default color space is standard RGB (sRGB) (Figs. 4-8, column 5, lines 21-46,. column 6, lines 22-36).

**Regarding claim 7** Kumada discloses: The method of claim 5, further comprising: said output device retrieving data representing parameters of said default color space, wherein said parameters include a code identifying a color space (note column 1 lines 36-46) primary coordinates (note Figs. 18, 19 and 20, column 11 lines 27-67 and column 12 lines 20-39) white point, brightness, tone characteristics, color reproduction characteristics, still picture/moving picture identification code or parameters for image processing (still picture/moving picture identification code (note Fig.4 column 5 lines 35-49).

**Regarding claim 10** Kumada discloses: The method of claim 1, wherein said output device is a display device capable of displaying an image obtained by conversion from the original image data, in a display area forming part of a display screen of the display device and said display device generates color space conversion parameters for the display area based on the tag data associated with the original image data and area data representing the display area, and converts the original image data into the image data of the second color space representing the image displayed in the display area, based on the generated color conversion parameters (a liquid crystal display device, a

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plasma display device. However, a projector, a liquid crystal display device, a plasma display device are also display devices which can display the image data).

**Regarding claim 13** Kumada discloses: An image processing system, having an output device that converts image data of a second color space (note Fig.21 , column 11 lines 53-57 where the second color space was created, CMYK) to a visually-perceptible analog of said image data, to output original image data that was generated relative to a first color space (note Figs.18-23 lines 26-53 where the first color spaces of CIE, XYZ OR CIE lab produced) the apparatus comprising: a provider of image data (note Fig.23 item 40) a communication channel (Fig.23 item 30) and an output device that converts image data of a second color space (note Fig.21 , column 11 lines 53-57 where the second color space was created, CMYK) to a visually-perceptible analog thereof; said output device being operable to receive said original image data, that was generated according to a first color space (note Figs.18-23 lines 26-53 where the first color spaces of CIE, XYZ OR CIE lab produced) from said provider over said communication channel; said output device being operable to receive, along with said image data, tag data representing parameters of said first color space from said provider over said communication channel (Kumada teaches that the output device receives along with the image data , tag data representing parameters of the first color space from the provider, Kumada teaches that the output receives image file added with a profile (note Fig.2 where the image file is added with a profile, the profile is divided into a header portion and data storage portion, in the header portion, information which is used to manage the profile is stored, in the data storage portion, profile description information for

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discriminating the profile is stored, column 1 lines 36-46 in addition the, from the prior art, a device profile performs a color conversion process to perform color matching between input and output images using the profile corresponding to a source device before conversion and a profile corresponding to a destination device after conversion, column 1 lines 15-21, thus the profile can include parameters of the color space of the image data) said output device being operable to convert said original image data relative to said first color space according to said tag data to produce converted image data of said second color space; and said output device being operable to convert said converted image data into a visually-perceptible analog thereof (note column 11, Fig.18-23 , lines 27-62).

**Regarding claim 15** Kumada discloses: An image processing system (Figs.23 and 33) having an output device (10) that converts image data of a second color space for example, independent color space CIE, XYZ OR CLE Lab) to a visually-perceptible analog of said image data (note column 11 lines 49-57) to output original image data that was generated relative to a first color space (note for example, RGB color space from the scanner) the apparatus comprising: a provider (item 40) of image data; a communication channel (item 30) and an output device (item 10) that converts image data of a second color space (note Fig.21 , column 11 lines 53-57 where the second color space was created, CMYK) to a visually-perceptible analog thereof; said output device being operable to receive said original image data, that was generated according to a first color space (item 60) from said provider over said communication channel (item 30) said output device item (10) being operable to receive along with said image

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data, tag data representing parameters of said first color space from said provider over said communication channel (Kumada teaches that the output device receives along with the image data , tag data representing parameters of the first color space from the provider, Kumada teaches that the output receives image file added with a profile (note Fig.2 where the image file is added with a profile, the profile is divided into a header portion and data storage portion, in the header portion, information which is used to manage the profile is stored, in the data storage portion, profile description information for discriminating the profile is stored, column 1 lines 36-46 in addition the, from the prior art, a device profile performs a color conversion process to perform color matching between input and output images using the profile corresponding to a source device before conversion and a profile corresponding to a destination device after conversion, column 1 lines 15-21, thus the profile can include parameters of the color space of the image data) to said first color space (note Figs.18-23 lines 26-53 where the first color spaces of CIE, XYZ OR CIE lab produced) according to said tag data to produce converted image data of said second color space and said output device being operable to convert said converted image data into a visually-perceptible analog thereof said output device being operable to convert said original image data relative (Figs. 4-5, 21, 25, 36, 37; Abstract; column 5, lines 4-31 and column 6, lines 16-67 and column 11, line 27 – column 12, line 67; column 16, lines 23-60) Kumada further teaches that the output device is a monitor or a printer (column 1, lines 24-33; column 5, lines 10-11; column 6, lines 12-27) a device profile performs a color conversion process to perform color matching between input and output images using a profile



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corresponding to a source device before conversion and a profile corresponding to a destination device after conversion (column 1, lines 15-21). Thus, the profile can include parameters of the color space of the image data, Fig.23 item 30, the first color space is a default color space and the output device is operable to convert the original image data relative to the second color space (Figs. 4-8, column 5, lines 21-46, column 6, lines 22-36).

**Regarding claim 17** Kumada discloses: The image processing system of claim 13, wherein said output device includes a component of a personal computing device connected to said network (note Fig.23 item 10 and 11, column 12 lines 5-38).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada (U.S. patent 6,337,922) in view of Hibe (U.S. patent 5,359,437)

**Regarding claim 3** Kumada fails to teach that the parameters are combination of the primary coordinates and the tone characteristics or the tone characteristics include a gamma value for the first color space and table values for tone conversion, or the color reproduction characteristics include one of RGB signal levels for specific colors or a combination of hue, chroma and value coordinates. On the other hand Hibi discloses an apparatus for color conversion having conversion circuit 22 for converting signals of

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reflectance read by CCD sensor into signals of lightness scale  $L^*bgr$ , and an  $L^*a^*b^*$  conversion circuit 23 for converting signals of lightness scale  $L^*bgr$  into standard system value ( $L^*a^*b^*$ ) signals where axis  $L^*$  of the system values indicate intensity and two dimensional surface of axis  $a^*$  and axis  $b^*$  orthogonal to the axis  $L^*$  indicates saturation and hue, a hue and chroma conversion circuit 24 generates signals  $H$  (hue) and  $C$  (chroma) from system value  $L^*a^*b^*$  signals. Hibi further teaches a tone reproduction which controls conversion circuit 29 carries out tone conversion in accordance with output characteristics of the image output device, and then carries out color balance control and contrast control (column 7, lines 11-42). It would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of Hibi to the parameters of the color space in the profile taught in Kumada since Kumada teaches that the profile is for color conversion between input and output images corresponding to a source device before conversion and a profile

**Regarding claim 9** Hibi discloses: The method of claim 3, wherein said hue, chroma and value coordinates are expressed in absolute magnitudes or relative magnitudes (note Fig.2 column 6 lines 30-55).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumada (U.S. patent 6,337,922) in view of Agarwal et al (U.S. patent 6,509,910)

**Regarding claim 18** Agarwal et al disclose: The image processing system of claim 17, wherein said network connection is wireless (note column 3 lines 62- column 4 line 4) It would have been obvious to one skilled in the art at the time that invention was made to combine the teaching of wireless communication networking Agarwal to the system in Kumada since Kumada does not limit the type of network connection and both of Kumada and Agarwal teach the transmission and reception of image data along with a profile through a communication network.

### **Allowable Subject Matter**

3. Claims 4, 11-12, 14, 16 and 19-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Claim Objections**

4. Claim 21 is objected to because of the following informalities: claim 21 is dependent on claim 20 which is “the image processing system” therefor claim 21 need to be addressed as “image processing system” instead of “method claim” as it has been stated. Appropriate correction is required.

### **Contact Information**

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- Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Saeid Ebrahimi-Dehkordy* whose telephone number is (571) 272-7462.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams, can be reached at (571) 272-7471.

**Any response to this action should be mailed to:**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**Or faxed to:**

(571) 273-8300, (for **formal** communications; please mark  
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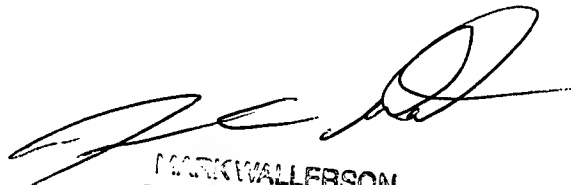
**Or:**

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"PROPOSED" or "DRAFT")

**Hand delivered responses** should be brought to Knox building on 501 Dulany Street, Alexandria, VA.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 305-4750.

*Saeid Ebrahimi-Dehkordy*  
Patent Examiner  
Group Art Unit 2626  
March 19, 2006

  
MARK WALLERSON  
PRIMARY EXAMINER